# Download the Arduino IDE (Integrated Development Environment)

## Access the Internet

In order to get your RedBoard up and running, you'll need to download the newest version of the Arduino software first from www.arduino.cc (it's free!). This software, known as the Arduino IDE, will allow you to program the board to do exactly what you want. It's like a word processor for writing programs. With an internet-capable computer, open up your favorite browser and type in the following URL into the address bar:

arduino.cc/en/main/software

**1**

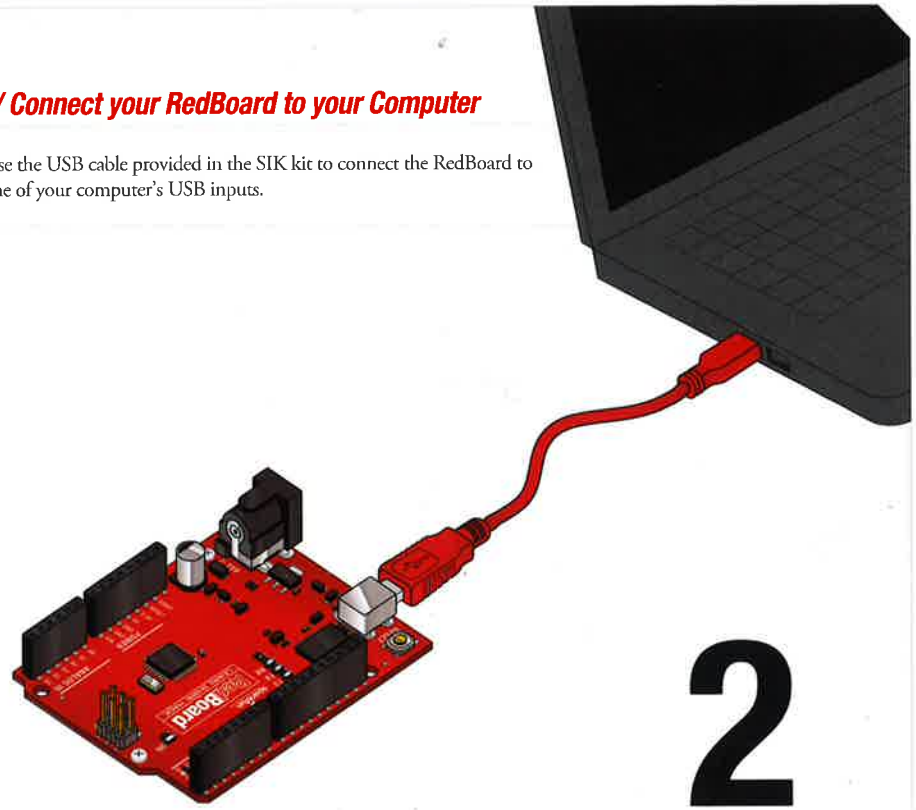
**Download** — Click on your appropriate computer operating system next to the " + " sign.

- + Windows
- + Mac OS X
- + Linux: 32 bit, 64 bit
- + source


! *Choose the appropriate Operating System installation package for your computer.*

## // Connect your RedBoard to your Computer

Use the USB cable provided in the SIK kit to connect the RedBoard to one of your computer's USB inputs.



# 2

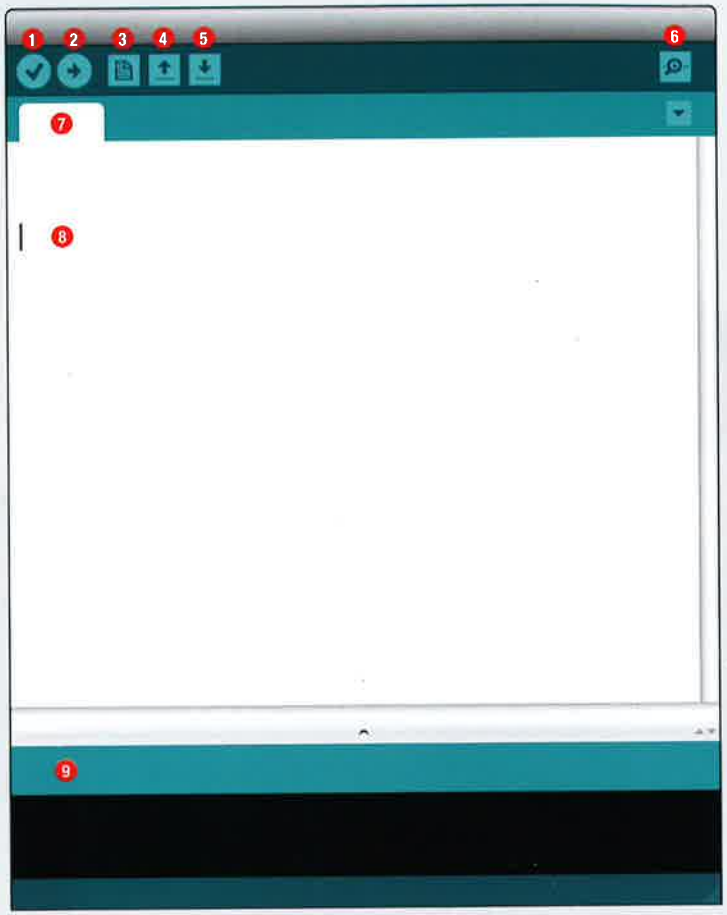
# 3

## // Install Arduino Drivers

Depending on your computer's operating system, you will need to follow specific instructions. Please go to **www.sparkfun.com/FTDI** for specific instructions on how to install the FTDI drivers onto your RedBoard.

## // Open the Arduino IDE:

Open the Arduino IDE software on your computer. Poke around and get to know the interface. We aren't going to code right away, this is just an introduction. This step is to set your IDE to identify your RedBoard.



## GUI (Graphical User Interface)

1. **Verify:** Compiles and approves your code. It will catch errors in syntax (like missing semi-colons or parenthesis). // See Diagram Below
2. **Upload:** Sends your code to the RedBoard. When you click it, you should see the lights on your board blink rapidly. // See Diagram Below
3. **New:** This buttons opens up a new code window tab.
4. **Open:** This button will let you open up an existing sketch. // See Diagram Below
5. **Save:** This saves the currently active sketch.
6. **Serial Monitor:** This will open a window that displays any serial information your RedBoard is transmitting. It is very useful for debugging.
7. **Sketch Name:** This shows the name of the sketch you are currently working on.
8. **Code Area:** This is the area where you compose the code for your sketch.
9. **Message Area:** This is where the IDE tells you if there were any errors in your code.

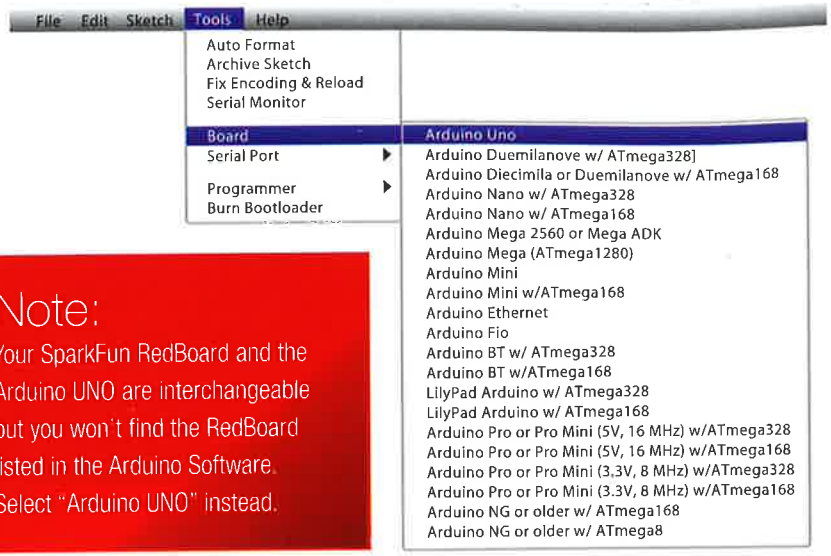
**// The three most important commands for this guide are seen below:**

***Open***

***Verify***

***Upload***

# 4 // Select your board: Arduino Uno

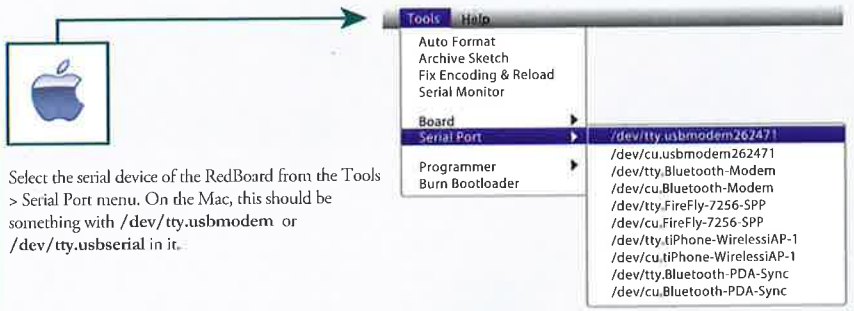



## Note:

Your SparkFun RedBoard and the Arduino UNO are interchangeable but you won't find the RedBoard listed in the Arduino Software. Select "Arduino UNO" instead.

## // Select your Serial Device


Select the serial device of the RedBoard from the Tools | Serial Port menu. This is likely to be **com3 or higher** (COM1 and COM2 are usually reserved for hardware serial ports). To find out, you can disconnect your RedBoard and re-open the menu; the entry that disappears should be the RedBoard. Reconnect the board and select that serial port.

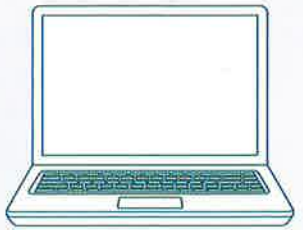



Select the serial device of the RedBoard from the Tools > Serial Port menu. On the Mac, this should be something with **/dev/tty.usbmodem** or **/dev/tty.usbserial** in it.

http://www.arduino.cc/playground/Learning/Linux

# Download Arduino Code (For use with the circuits in this guide)

# 5



Type in the following URL to download the code:

**sparkfun.com/sikcode**

## // Copy "SIK Guide Code" into "Examples" library in Arduino folder

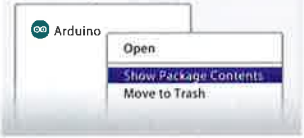
Unzip the file "SIK Guide Code". It should be located in your browser's **"Downloads"** folder. Right click the zipped folder and choose **"unzip"**.

Start → Programs → arduino → examples

Copy the "SIK Guide Code" folder into Arduino's folder named "examples".


Unzip the file **"SIK Guide Code"**. It should be loacted in your browser's **"Downloads"** folder. Right click the zipped folder and choose **"unzip"**.

Find "Arduino" in your applications folder. Right click(ctrl + click) on "Arduino". Select "Show Package Contents".

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Copy the "SIK Guide Code" folder into Arduino's folder named "examples".

http://www.arduino.cc/playground/Learning/Linux

**WHAT'S NEXT? Read on to learn more about getting started with circuits. Then you can start on your first circuit on page 17!**